



Figure S1: The probability that a disease which spreads by dispersing pathogen propagules remains in the population for 100 time units, against the propagule production rate  $m_p$ . Initially between 1 and 64 occupied patches are infected in a metapopulation with  $10^5$  (occupied or empty) patches. We note the zero order approximation to  $R_*=1$  is given by  $m_p=1$  while the first order approximation is  $R_*=0.93$  in the uncorrelated landscape and  $R_*=0.81$  in the correlated landscape (as shown). The parameters are as in fig. 1 with spatial scales  $\delta_S=\delta_P=2$ . Results based on >200 simulations.